

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph on page 7, lines 14-26, to read as follows:

b1
Fig. 1 illustrates an embodiment of the ergonomic positioning device 50, implemented with a rollerbar 54, as utilized with a typical keyboard 52. The keyboard 52 rests on the keyboard tray 60 with an enclosure 56, having a longer right side 57 and a shorter left side 59, oriented to place the rollerbar 54 centered beneath the spacebar 62. Depressing the rollerbar 54 closes a switch (not shown) performing the same function as depressing a left button on a mouse. Function keys and scroll wheel 58 are centered on the ergonomic positioning device 50 further away from the spacebar 62 than the rollerbar 54. Palm rests 64 may be incorporated in the ergonomic positioning device 50.

Please amend the paragraph on page 11, lines 7-27, to read as follows:

b2
As can be seen in Fig. 2, an access enclosure 102 defines the area for user interaction with the rollerbar 54. The access enclosure 102 is positioned to align with the keyboard spacebar 62 and is midway between a sensor 106 that monitors rollerbar movement and the left end 101 of the ergonomic positioning device 50 assembly. The access enclosure 102 is always spanned by a part of the sleeve 72 of the rollerbar 54 and the sleeve 72 does not normally touch the edges of the access enclosure 102. As the bar is translated, the distal end 74' of sleeve 72 lies in the area

between alignment gateway 80 and the distal end 108 of the access enclosure 102. The proximate end 74 of sleeve 72 lies in the area between alignment gateway 78 and a spot 104 near the proximate edge of the sensor 106. The sensor 106 is placed at the location shown to assure that a portion of the sleeve 72 always remains over the sensor 106 while allowing maximum horizontal traverse of the rollerbar 54. This location is displaced from the proximate end 110 of the access enclosure ~~106~~102 by approximately the distance that distal end 74' travels. In a preferred embodiment, the rollerbar is adapted to traverse a left travel distance and an activation distance, and the focus area is located at approximately the sum of two times the left travel distance plus the activation distance from the left end of the rollerbar.

Please amend the paragraph on page 13, lines ~~6-19~~, to read as follows:

One implementation of the motion sensor 58 functions by comparing images of the sleeve 72 at known time intervals to determine the movement. The sensor 106 detects patterns in sleeve 72 that may be coated with a rubber-like compound for tactile feedback to the user. The sleeve 72 and sensor 106 are spaced so that, when the rollerbar 54 is in the normal position, the lowest point of the sleeve 72 is centered in the focal range of the sensor 106. As the rollerbar 54 is depressed, it remains essentially in focus. Fig 6 illustrates a sensor mounting arrangement that has the sensor mechanism 114 mounted facing upward in a base plate/clip 116 that is fitted in a ~~the~~ circuit

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board ~~118~~ 115. Alternate arrangements of rollerbar 54 and sensor 106 are discussed below.

Please amend the paragraph on page 14, lines 9-28, to read as follows:

B4
The ergonomic positioning device 50 can utilize either a USB or PS/2 serial connection to a computer system. While the USB connection provides a daisy chain capability, the PS/2 serial protocol does not. The ergonomic positioning device 50 facilitates the concurrent connection of a PS/2 compatible device (not shown) to the computer with the connection of the ergonomic positioning device 50. As shown in Fig. 9, the ergonomic positioning device 50 incorporates a PS/2 port 164 on the backside of the enclosure 56 for connecting an additional PS/2 device. Internal logic, as illustrated in Fig. 10, passes the bus functions received at block 160 onto the PS/2 port 164 after passing through a conversion block 162 if necessary. Signals returning from the PS/2 port 164 are ORed in block 168 with switch closures and sensor inputs at block 166 from the ergonomic positioning device 50. In this way, any combination of switch closures and cursor controls of either the ergonomic positioning device 50 or the PS/2 device may be used to interact with the computer.

Please amend the paragraph on page 17, line 9, to page 18, line 3, to read as follows:

b5
An alternate arrangement of the sensor and rollerbar is shown in Fig. 13. This arrangement allows the sensor 128 to ~~focuses~~ focus on the clickable rollerbar 120 from the side. The rollerbar 120 is formed as described above, but is not cantilevered from a mount. Rather, the rollerbar 120 is supported by a U-shaped bracket 122 held to the base 130 at the front 132 of the enclosure 56. The ends 136, 138 of the bracket are supported on springs 124 before supporting the rollerbar 120. The sensor 128 is focused on the side of the rollerbar 120 with the focal plane spaced in the same manner as described above. However, in this arrangement, the sensor mount 140 cannot be fixed to the base 130 of enclosure 56. Fixed mounting with the sensor 128 focused horizontally on the rollerbar 120, would cause the axis of rollerbar 120 to pass out of focal range when the rollerbar 120 is depressed. Therefore, a circuit board 126 is mounted on the bracket 122 and the sensor 128 is mounted on the circuit board 126. The entire arrangement of sensor 128 and rollerbar 120 move vertically together. When a user depresses the rollerbar 120, the springs 124 are compressed and a switch (not shown) is activated. The sensor assembly 128 moves with rollerbar 120, staying focused on the rollerbar 120 as it is depressed.